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With an increase in plane speeds this problem is somewhat alleviated. Due to air friction there is a body of hot air which continually surrounds the plane. The temperature of this body of air varies with the velocity of the plane. In tests on V-2 rockets at speeds of 4,000 kilometers per hour, the rocket was heated to a red heat due to friction. The table below presents data on the increase in temperature at various air speeds.

<u>Speed</u> <u>(km/hr)</u>	<u>Temperature Increase</u> <u>(°C)</u>
100	0.38
200	1.5
300	3.4
400	6.0
500	9.4
700	18.6
800	24.0
1,000	38.0
1,500	85.0
2,000	152.0
3,000	431.0
4,000	606.0

This table shows the speeds and resulting temperature by means of which danger from ice formation can be avoided.

At present the heating of the cabin and crew of a plane is one of the major problems. However, a new problem, that of cooling a plane flying at high speeds, has arisen.

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- 2 -

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